

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Investigation pursuant to Senate Bill 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility located in the County of Los Angeles while still maintaining energy and electric reliability for the region.

Investigation 17-02-002
(Filed February 9, 2017)

**INFORMAL COMMENTS OF THE
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
ON THE ADMINISTRATIVE LAW JUDGE'S RULING REQUESTING INFORMAL
FEEDBACK ON ENERGY DIVISION'S UPDATED PROPOSED PHASE 1
SCENARIOS**

June 28, 2018

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For the: Center for Energy Efficiency and
Renewable Technologies

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The Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submit these Informal Comments on the Energy Division Updated Proposed Phase 1 Scenarios. These Scenarios were attached to the Administrative Law Judge’s (ALJ’s) Ruling issued in this Investigation on June 15, 2018 (June 15 ALJ’s Ruling). These Informal Comments are submitted pursuant to the June 15 ALJ’s Ruling.¹

As a general comment, Attachment A² to the June 15 ALJ’s Ruling plus the referenced “Unified I/A³” document referenced therein are insufficient to document the processes and data sources used in the Phase 1 modeling effort. For example, Attachment A lists the data source for forecasted gas loads as the “most recent California Gas Report or directly from SoCalGas”⁴ yet the most recent official document with that specific title on the California Energy Commission (CEC) website is the 2008

¹ June 15 ALJ’s Ruling, at p. 1.

² Update to the Scenarios Framework: I.17-02-002, June 15, 2018

³ Unified Resource Adequacy and Integrated Resource Plan Inputs and Assumptions – Guidance for Production Cost Modeling and Network Reliability Studies, Energy Resource Modeling Section, Energy Division, CPUC Feb 20, 2018

⁴ Attachment A, at p.11

California Gas Report.⁵ Presumably, the Appendix A reference to the “most recent California Gas Report” coincides with the utility forecast submitted to the most recent CEC Integrated Energy Policy Report (IEPR) proceeding⁶ where policy overlays and scenarios for future demand are used to adjust the utility data submittals taken from the 2016 California Gas Report. To maintain consistency with other modeling inputs, the IEPR should be the source of forecasted gas loads for this modeling exercise and the specific IEPR scenario(s) used should be spelled out. To the extent that the IEPR itself does not contain specific locational and sector specific load forecasts with enough granularity for use in this exercise, then the CEC should be asked to provide that granular forecast based on the scenario(s) chosen from the IEPR.

This is but one example of many where the documentation for Phase 1 modeling is insufficient or ambiguous. CEERT looks forward to further publications and the July 31 Workshop before submitting final comments for Commission consideration.

In addition, CEERT notes that there are significant inconsistencies and ambiguities in the characteristics of the gas fleet to be modeled in Phase 1. Attachment A lists the data sources as the “17 natural gas-fired power plants in the Los Angeles basin (Aliso Plants)”⁷ and refers to the Unified I/A for details. The Unified I/A lists the data source for the gas fleet as the “CAISO masterfiles” for plants in the CAISO Balancing Authority and the “TEPPC⁸ 2026 Common Case” for plants in the LADWP Balancing Authority.⁹ CEERT compared at a high level these data sources and found:

⁵ www.energy.ca.gov/2008publications/GAS-1000-2008-020/GAS

⁶ These data submittals are still sometimes informally referred to as the “Gas Report.”

⁷ Attachment A, at p. 20

⁸ Transmission Expansion Planning Policy Committee (TEPPC).

⁹ Unified I/A, at p. 38

-Plants located in the Aliso Delivery Zone¹⁰ that should be on the 17 plant list but are not: ~**940 MW**. The 262 MW GWP Grayson plant¹¹ plus 675 MW of “cogen” that is on the California Independent System Operator (CAISO) Local Capacity Requirement (LCR) physical resource list for Western LA Basin.¹² These cogen plants are supposedly modeled but not considered dispatchable and operate at full load in 2029 even though most of these units are either dispatchable/curtailable by contract or will retire within ~5 yrs.

- Dispatchable plants on the 17 plant list that are considered must run non-dispatchable by the Unified I/A: **814 MW** (Chevron and BP refinery cogens)

- Los Angeles Department of Water and Power (LADWP) Balancing Authority (BA) gas plants taking service from SoCalGas not in TEPPC Common Case and thus not in the Unified I/A data base: ~ **150 MW** (mainly, large behind-the-meter (BTM) central utility plants such as LAX or UCLA)

- Planned retirements/additions in the LADWP BA since 2026 TEPPC Common Case (circa 2014 utility submittals to WECC): ~**500 MW**

So, the data-base as described by the Unified I/A appears to be missing or potentially mischaracterizes the critical operating characteristics of roughly 2500 MW of gas resources (~25% of total) that are roughly in the Aliso Delivery Zone. Precise numbers are difficult to determine even if each data-base is error-free and completely

¹⁰ see e.g., Aliso Canyon Gas Electric Coordination. Working Group Meeting April 6, 2016, Slide 6. Found at: www.caiso.com/Agenda_Presentation_AlisoCanyonGasElectricCoordination_WorkingGroup.PDF

¹¹ Grayson capacity shown after planned repowering project currently in permitting. See www.glendale.ca.gov/graysonrepowering.com/#final-eir

¹² see e.g. 2019 Local Capacity Technical Analysis, Appendix A – List of physical resources by PTO, local area and market ID for a public version of CAISO Master File data. Found at www.caiso.com/Documents/Final2019LocalCapacityTechnicalStudy.pdf

current because the “Aliso Delivery Zone” is an ambiguous term that does not exactly match precise LADWP BA plus CAISO Western LA Basin LCR Area boundaries used by the various data bases. The boundaries of the Aliso Delivery Zone are somewhat arbitrary and system operations beyond the Zone described are clearly affected by Aliso operations. These discrepancies and ambiguities need to be resolved and a final list including precise capacities and critical operating characteristics should be published for comment at the July 31 workshop.

Finally, and most critical, the Phase 1 modeling plan in Appendix A does not answer the key question that defines the proceeding – “What physical changes to the system will allow the phaseout/shutdown of Aliso Canyon and how much will that cost?” This question simply cannot be answered by hydraulic models plus production cost modeling alone that only look at changes in short run variable cost assuming a static physical system. These variable cost changes are unlikely to be significant given that the “events” that trigger these redispatch costs will be rare. In addition, because many of the gas dispatch “costs” at issue are really fixed costs associated with gas delivery that are collected volumetrically from electric system ratepayers, SERVM will mischaracterize the ratepayer impact that will actually occur by reallocation of recovery of these fixed costs between customers in PG&E vs SoCalGas territory, and among customer classes in each gas service territory -- likely to be seen in General Rate Cases—not in electric customer monthly bills. The potentially larger impacts of restrictions on Aliso operations require power flow analysis by the CAISO and LADWP to establish the changes in fixed costs associated with changes in the LCR RA reliability requirements for the CAISO BA and analogous fixed cost changes in the LADWP BA

that has no Resource Adequacy (RA) capacity payments to its vertically integrated UOG gas fleet.

The Phase 1 Production Cost Modeling (PCM) and Economic modeling scheme, while it has a place in the analysis, will ignore fixed cost changes that are beyond the purview of SERVVM and beyond the fundamental locational and technological granularity of RESOLVE¹³ if that Unified I/A capacity expansion model were to be used to deal with fixed cost changes. Whatever costs differentials appear from the SERVVM PCM modeling is highly likely to represent false precision in variable costs ten years out and be overwhelmed by structural or policy driven changes in fixed costs in that timeframe. For example, the 2026 TEPPC Common Case has just recently been rendered essentially obsolete for LADWP by a June 26, 2018, Board decision to adopt a 70% RPS target in 2036 that is front-loaded with renewable procurements and gas use reductions for 2024 and 2030.¹⁴ Also, significant changes in Burbank and Glendale system plans have occurred since 2014 when the TEPPC Common Case data submittals were made. Appendix A does not explicitly call out the base Unified I/A IRP scenario that will be used for Phase 1 modeling – principal choices being either the 50% RPS Default or the 42 MMT Core cases.

While CEERT strongly recommends the 42 MMT Case as more representative of the CAISO system in 2029, regardless of which “base case(s)” are chosen for Phase 1 modeling, the key issue is what physical and operational changes from that base case are required to allow the phaseout of Aliso Canyon and how much would these changes

¹³ e.g., RESOLVE cannot deal with transmission reinforcements to reduce LCR requirements within the Aliso Delivery Zone

¹⁴ see www.ladwp.com/sitemap/Board of Commissioners/Agenda for June 26, 2018/Items 6A and 17.

cost compared to the “base case.” This will require close on-going collaboration with at least the CAISO, LADWP and the CEC, as well as use of power flow models that are not available to the CPUC and can only be exercised by the CAISO and LADWP in an iterative fashion to deduce dispatch patterns from SERVIM as input into hydraulic modeling of the gas system and power flow modeling of the electric system under stress conditions as defined by CAISO LCR studies and analogous studies from LADWP. Once this process is “complete” (likely to be a range of results), the Economic Modeling as described in Appendix A with due consideration of both fixed and variable costs and fixed cost recovery shifts among PG&E, SCE, SoCalGas and LADWP ratepayers and customer classes can be accomplished to inform Phase 2 in this proceeding.

The PCM and Economic modeling plan in Appendix A simply must be scrapped and reconstituted from scratch. This should be the principal subject of the July 31 Workshop with publication of a proposed revised plan in the meanwhile.

Respectfully submitted,

June 28, 2018

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